

## The Use Of Multimedia In Learning The Material Of Movement In Plants In Class VIII MTsN Rukoh Banda Aceh

Muhammad Yassir<sup>1\*</sup>, Muhammad Tahir<sup>2</sup>, Erelia Hanum<sup>3</sup>

<sup>1,2</sup> University of Gunung Leuser Aceh

<sup>3</sup> Universitas Almuslim

### Article Info

#### Article history:

Received 1 June 2025

Revised 10 June 2025

Accepted 16 June 2025

#### Keywords:

Multimedia, Learning, Movement in Plants.

### ABSTRACT

The topic of movement in plants is material that is taught in junior high schools in class II semester 2. Meanwhile, when the teacher explains the subject matter, students do not respond to the material taught by the teacher. The formulation of the problem in this research is how students respond at MTsN Rukoh Banda Aceh to the use of multimedia on the subject of movement in plants in class VIII MTsN Rukoh Banda Aceh City. This research aims to determine the response of MTsN Rukoh Banda Aceh students to the use of multimedia on the subject of movement in plants. For this reason, the author took the subjects of this research in class I13 MTsN Rukoh Banda Aceh as many as 23 people. The data collection procedure is through distributing questionnaires to students. Meanwhile, data analysis techniques use simple statistics or percentages. The results of the research showed that the majority of students gave a positive response to learning using multimedia on movement material on plants as a whole was categorized as good. Thus, the teaching and learning process (PBM) using multimedia on movement material on plants was generally positive.

*This is an open access article under the CC BY-SA license.*



### Corresponding Author:

Muhammad Yassir | Universitas of Gunung Leuser Aceh

Email: muhammadyassir404@mail.com

## 1. Introduction

The success of educational programs through the teaching and learning process in schools as formal education is greatly influenced by many factors, namely students, curriculum, educators, costs, methods and learning facilities and infrastructure (Yassir, 2014). If all these factors can be met, it will certainly facilitate the teaching and learning process.

The implementation of a learning also greatly affects the success of the learning process. In the learning process there are several components that influence each other, including teachers and students. Thus, teachers must be able to choose the right learning with the conditions when the learning process takes place. One of the things that teachers can do at

school is to utilize the media available at school so that students can be directly involved in teaching and learning activities.

Learning using appropriate media is used to improve students' understanding of biology lessons, especially on the material of plant movement. Plant movement material is difficult to understand with explanations, thus clear evidence is needed so that researchers want to convey learning using a set of modern technology media with media that can integrate sound, images, and animations, which are programmed based on learning theories that can be done with the help of laptops. By using these media in learning activities, it can help create a more interesting, innovative, creative and enjoyable classroom atmosphere.

Movement in plants is one of the biology learning concepts taught in Junior High Schools in class II semester 2. Based on the results of interviews with Biology teachers at MTsN Rukoh, it is known that when the teacher explains the material on movement in plants, students are less responsive to the learning carried out by the teacher and the class conditions are also less controlled so that the expected learning objectives are difficult to achieve. The teacher also added that students find it difficult to remember and understand the material on movement in plants and the results of questions and answers with students also revealed that students find it difficult to distinguish between the types of movement in plants so that students have difficulty in solving questions on the material.

The results of initial observations also show that teachers tend to only transfer as much information as possible to students so that what has been learned by students is quickly forgotten causing less mastery of the material in the learning process, some methods that are often used in the learning process and which are commonly used in teaching activities include lectures, demonstrations, discussions and questions and answers. So it is necessary to achieve optimal results to overcome various weaknesses in the teaching and learning process is to implement effective learning in order to achieve a national education goal (Yassir in Slameto, 2020). On this basis, it is necessary to investigate directly to what extent the use of multimedia functions optimally in learning the concept of movement in plants.

## **2. Methodology**

This study is a type of quasi-experimental research or also called pseudo-experimental research that uses only one class in the form of class treatment. Quasi-experimental research to obtain information that is an estimate of the information obtained by the actual experiment in circumstances that do not allow to control or manipulate all relevant variables (Sukardi, 2004). This study began in two meetings by teaching the material of movement in plants through the use of multimedia to students, then this study aims to see student responses by distributing questionnaires to all students at the end of the meeting.

## **3. Results**

In this chapter, the presentation of the discussion of the results obtained from the research conducted at MTsN Rukoh. The analysis of the results of this study was carried out using simple statistics to describe the picture of the results of observations of teaching and learning activities in the form of MTsN Rukoh Banda Aceh students' responses to the use of

multimedia on the subject of plant movement in class VIII MTsN Rukoh Banda Aceh students.

To find out how students respond to learning using multimedia on the material of plant movement in class VIII MTsN Rukoh Banda Aceh, the author gave a questionnaire to 23 students in the class after all the teaching and learning processes were completed. The results of the questionnaire data analysis obtained from class VIII MTsN Rukoh students can be seen in the following tables:

Table 1. Percentage Of Students In Understanding The Material On Movement In Plants Taught Through The Use Of Multimedia.

No	Alternative Answers	Frequency	Percentage (%)
1.	Strongly Agree	15	65,21
2.	Agree	8	34,78
3.	Don't Agree	-	-
4.	Strongly Disagree	-	-
<b>Amount</b>		<b>23</b>	<b>100 %</b>

Based on the data, it can be concluded that the use of multimedia in learning can make it easier for students to understand the material of movement in plants. Where 15 students (65.21%) chose strongly agree, 8 students (34.78%) agreed, and no students chose disagree and strongly disagree.

Table 2. Learning Using Multimedia Makes It Easier For Students To Answer Questions.

No	Alternative Answers	Frequency	Percentage (%)
1.	Strongly Agree	12	52,17
2.	Agree	11	47,82
3.	Don't Agree	-	-
4.	Strongly Disagree	-	-
<b>Amount</b>		<b>23</b>	<b>100 %</b>

Based on the table above, it shows that the level of ease of students in answering questions on the material of movement in plants towards learning using multimedia is very good. The comparison is, 12 students (52.17%) chose strongly agree, 11 students (47.82%) agreed, and no students answered disagree and strongly disagree.

Table 3. Students Do Not Feel Any Difference Between Learning Through Multimedia And Learning As Usual.

No	Alternative Answers	Frequency	Percentage (%)
1.	Strongly Agree	6	26,08
2.	Agree	4	17,39
3.	Don't Agree	8	34,78
4.	Strongly Disagree	5	21,73
<b>Amount</b>		<b>23</b>	<b>100 %</b>

Based on the data, it was obtained information that students felt there was a difference between learning through the use of multimedia and learning as usual. This can be seen from the learning of students as much as 43.47% felt the same as learning as usual, but 56.51% of students stated that learning through the use of multimedia on the material of movement in plants was different.

Table 4. Students Are Enthusiastic And Excited About Learning Using Multimedia

No	Alternative Answers	Frequency	Percentage (%)
1.	Strongly Agree	11	47,82
2.	Agree	8	34,78
3.	Don't Agree	4	17,39
4.	Strongly Disagree	-	-
<b>Amount</b>		<b>23</b>	<b>100 %</b>

From the table above, it can be seen that almost all students (82.61%) stated that they were enthusiastic about learning using multimedia, only 4 students (17.39%) stated that they did not feel enthusiastic when learning using multimedia.

Table 5. Students Are Interested In Participating In Learning Activities Using Multimedia.

No	Alternative Answers	Frequency	Percentage (%)
1.	Strongly Agree	15	65,21
2.	Agree	8	34,78
3.	Don't Agree	-	-
4.	Strongly Disagree	-	-
<b>Amount</b>		<b>23</b>	<b>100 %</b>

From the data it can be concluded that all students are very interested in participating in learning activities using multimedia. Where 15 students (65.21%) strongly agree, and 8 students (34.78%) agree.

Table 6. The Use Of Multimedia Is Suitable For Other Biological Materials.

No	Alternative Answers	Frequency	Percentage (%)
1.	Strongly Agree	14	60,86
2.	Agree	9	39,13
3.	Don't Agree	-	-
4.	Strongly Disagree	-	-
<b>Amount</b>		<b>23</b>	<b>100 %</b>

The table above shows that the use of multimedia is suitable for other biology materials. This is proven by the fact that 14 students (60.86%) chose to strongly agree, 9 students (39.13%) agreed, and no students chose to disagree or strongly disagree with the statement on the use of multimedia.

Table 7. Condition Of Students Who Do Not Feel An Active Atmosphere In Learning Using Multimedia

No	Alternative Answers	Frequency	Percentage (%)
1.	Strongly Agree	3	13,04
2.	Agree	4	17,39
3.	Don't Agree	7	30,43
4.	Strongly Disagree	9	39,13
<b>Amount</b>		<b>23</b>	<b>100 %</b>

Based on the table above, there are several students (30.43%) who feel that there is an inactive atmosphere in the learning process on the material on plant movement using multimedia, while as many as (69.56%) other students stated that there is an active atmosphere in the learning process using multimedia on the material on plants.

Table 8. Learning Using Multimedia Is A New Biology Learning Strategy.

No	Alternative Answers	Frequency	Percentage (%)
1.	Strongly Agree	13	56,52
2.	Agree	10	43,47
3.	Don't Agree	-	-
4.	Strongly Disagree	-	-
<b>Amount</b>		<b>23</b>	<b>100 %</b>

Based on the table above, it can be seen that the use of multimedia is a new biology learning strategy for students. This can be seen from 13 students (56.52%) who chose to strongly agree, 10 students (43.47%) who chose to agree.

Table 9. Delivering Material On Movement In Plants Using Multimedia Is Very Boring.

No	Alternative Answers	Frequency	Percentage (%)
1.	Strongly Agree	-	-
2.	Agree	3	13,04
3.	Don't Agree	8	34,78
4.	Strongly Disagree	12	52,17
<b>Amount</b>		<b>23</b>	<b>100 %</b>

The data above shows that as many as 3 students (13.04%) stated that they were bored with learning using multimedia, while as many as 20 students (86.95%) really enjoyed the delivery of material on plant movement using multimedia.

Table 10. The Use Of Multimedia Is A Learning Strategy That Does Not Involve All Students To Participate In Learning.

No	Alternative Answers	Frequency	Percentage (%)
1.	Strongly Agree	3	13,04
2.	Agree	2	8,69
3.	Don't Agree	6	26,08
4.	Strongly Disagree	12	52,17
<b>Amount</b>		<b>23</b>	<b>100 %</b>

Based on the table above, learning using multimedia is a learning strategy that involves students participating in the learning process, this can be seen from the table where 21.73% of students do not participate in learning, but 78.25% of other students choose to participate in learning using multimedia.

#### 4. Discussion

The use of multimedia at MTsN Rukoh Banda Aceh is something new for grade VIII students on the material of movement in plants. So that students are happier and more motivated to follow the lesson until the end. Using multimedia, students want to learn and to help make it easier for teachers and students to understand the material of movement in plants that can be observed in everyday life.

The use of multimedia in biology learning after being analyzed against the data that has been collected from the research results. Can increase the activity of movement in class VIII plants, MTsN Rukoh Banda Aceh. This is based on confidence and maximum effort so that the teaching and learning process can be created as expected by the author. With the author using multimedia, the atmosphere in the classroom becomes lively and active.

Based on the results of the student questionnaire, it can be concluded that 65.21% strongly agree and 34.78% agree to understand the material on plant movement taught through the use of multimedia in learning plant movement material because learning the material on movement can be observed directly by students displayed on the infocus screen by the teacher. This teacher utilizes the latest tools as learning resources in the teaching process. Through these tools, abstract lessons can be realized in a more concrete form, all students' senses and more interesting for students and enjoyment in learning and help bring students closer to the world of theory/concepts that are real (Soejoyo Dirdjosoemarto, 1981). Thus it will be a good capital or start in a learning process.

From the results of the study that 52.17% strongly agree and 47.82% agree learning using multimedia can be easy in answering questions on plant movement material because the biology subject teacher when explaining plant movement material in the learning process through a powerpoint display, and then playing a video of plant movement so that students are more active in the learning process. The implementation of the teaching and learning process is the process of ongoing learning (Suryosubroto, 2002). So that it influences students in answering the LKS questions distributed by the teacher before the teaching process takes place.

Furthermore, the results of the study can be concluded that 56.51% of students felt the difference between learning through the use of multimedia and learning as usual and 43.47% did not feel the difference between learning through the use of multimedia and learning as usual. This can be seen when the teacher introduced students to the use of multimedia, there was an interest in students to learn. The high interest of a person is one of the images of success, because interest can increase enthusiasm so that to achieve success, they try hard until the results are achieved well (Slameto, 1998).

The results of this study, 82.61% of students were very enthusiastic and enthusiastic in learning using multimedia, only 17.39% disagreed. This is because it was the first time a biology teacher used learning resources using multimedia on plant movement material. Learning resources as is known are educational facilities or facilities which are important components for the implementation of the teaching and learning process in schools (Slameto, 1998).

Thus it can be concluded that 100% of students are interested in following learning with multimedia. Slameto stated that interest is a constant tendency to pay attention and remember some activities, activities that someone is interested in, are paid attention to continuously accompanied by a sense of affection (Nasution, 2004).

It can be concluded that 60.86% of students strongly agree and 39.13% agree that the use of multimedia is suitable for other biology materials because basically in the implementation of teaching teachers are able to provide appropriate and correct materials according to the previously prepared learning plan in order to motivate and create a pleasant teaching and learning process atmosphere. Mulyasa stated that increasing the efficiency and quality of education is very dependent on the professionalism of teachers concerning teacher skills in increasing student motivation towards a more productive direction (Mulyasa, 2002).

Based on the research results, it can be concluded that 69.56% felt an active atmosphere in the learning process on plant movement material using multimedia and 30.43% felt an inactive atmosphere in the learning process. Optimal learning conditions can be achieved if

teachers are able to organize students and teaching facilities and control them in a pleasant atmosphere to achieve teaching goals (Syaiful Bahri, 2005).

Thus it can be concluded that 56.52% strongly agree and 43.47% choose to agree that the use of multimedia is a new biology learning strategy. Therefore, in the teaching and learning process, it is also necessary to develop new teaching methods (Roestiyah, 2001). Current developments with the advancement of science can utilize sophisticated technology in the form of the use of multimedia in the material of movement in plants.

From the results of the study it can be concluded that 86.95% of students can easily remember the concepts of movement in plants because the presentation of the material is not boring. At this stage students find terms from the concepts being studied (Fauziatul Fajaroh, 2010). This can be seen when the introduction of multimedia took place, students were very happy and very eager to look forward to learning about plant movement material using multimedia.

Based on the results of the study that 21.73% of students stated that the use of multimedia is a learning strategy that does not participate in learning and 78.25%, students participate in learning this is because the delivery process is taught abstractly and more focused on the learning process. Furthermore, Hudojo explained that teaching and learning strategies also greatly determine learning outcomes (Herman Hudojo, 1990). Choosing the right strategy will facilitate the process of knowledge in students, especially regarding the study of materials that are considered difficult by students.

## **5. Conclusion**

Based on the results of the research and discussion, the following conclusions can be drawn. Most students gave a positive response through the use of multimedia on the material on movement in plants.

## **6. Acknowledgements**

The author would also like to express his gratitude to the principal of MTsN Rukoh Banda Aceh, the biology teacher and other parties who have served and helped the author in collecting research data.

## **References**

- Dirdjosoemarto, Soejoyo. 1981. Educational Media. Jakarta: Education Project of the Department of Education.
- Djamarah, Syaiful Bahri. 2005. Teachers and Students. Jakarta: Rineka Cipta.
- Fauziatul Fajaroh & I Wayan Dasna. Accessed (August 16, 2010). Learning with Learning Cycles, <http://molucasablog.blogspot.com/2010/07/pembelajaran-dengan-model-siklus.html>.
- Hudojo, Herman. Teaching and Learning Strategies. Malang: IKIP Malang, 1990.
- Majid, Abdul. 2005. Learning Planning. Bandung: PT. Remaja Rosdakarya.
- Mulyasa, E. 2002. School-Based Management. Bandung: Rosda Karya.
- Nasution. 2004. Didactic Principles of Teaching. Jakarta: Bumi Aksara, 2004.
- Roestiyah. 2001. Teaching and Learning Strategies. Jakarta: Rineka Cipta. 2001.



- Slameto. 1998. Learning and Factors that Influence It. Jakarta: Bina Aksara.
- Sukardi. 2004. Competency Education Methodology and Its Practice. Jakarta: Bumi Aksara.
- Suryosubroto. 2002. Teaching and learning process. Jakarta: Rineka Cipta.
- Syah, Muhibbin Syah. 2004. Psychology of Learning. Jakarta: PT Raja Grafindo Persada.
- Uzer, Moh. 2008. Becoming a professional teacher. Bandung: Remaja Rosdakarya.
- Yassir, Muhammad., Aswarita, Rika., Seri Minta. 2020. Application of Recitation Method to Biology Learning Outcomes on Plant Organ Tissue Structure Material for Class VIII SMP Negeri 1 Lawe Bulan Kutacane in the 2018 Academic Year. Serambi Konstruktivis. Vol.2.No.3.Pages43-52.  
<https://ojs.serambimekkah.ac.id/Konstruktivis/article/view/2280>.
- Yassir, Muhammad., S Ali M., Cut Nurmaliah. 2014. Jigsaw Type Cooperative Model to Improve Cognitive Learning Outcomes on Environmental Pollution and Damage Material. Biologi Edukasi. Vol. 6. No. 1. Pages 24-27.